きょうだい関係における自己評価維持機制と友人関係に及ぼす出生順位効果

Self-Evaluation Maintenance Processes in Sibling Relationships and Birth Order Effect on Friend Relationships

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ABSTRACT

本研究は，きょうだい関係において自己評価維持（SEM）機制の２つの過程がどのように作用しているか，また出生順位が友人関係におけるSEMに及ぼす効果について検討したものである。その結果，きょうだい関係において，自己評価維持機制が明確に示された。つまり，参加者は，自らの自己評価を維持するため，比較過程を避け，反映過程を用いることが明らかとなった。また，出生順位が，自己評価維持に影響を及ぼすことが示された。第一子，末っ子，ひとりっ子は，明確な自己評価維持傾向を示し，比較過程の回避が見られたのに対し，中間子は，比較過程の回避が見られなかった。これらの結果から，特に中間子の特性について考察がなされた。

This study examines whether two processes of self-evaluation maintenance (SEM) model work in sibling relationships and the effect of birth order on SEM in friend relationships. It was found that the SEM model

did work for sibling relationships. It was clear that participants avoided the comparison process and utilized the reflection process to maintain a positive self-evaluation. The effect of birth order on participants' self-evaluation maintenance behavior was also found. Firstborn, Lastborn, and Only Child participants avoided the comparison process whereas Middleborn participants did not avoid the comparison process. From these results, we discussed the unique characteristics of Middleborn individuals.

1. Problem and Background of Study

Individuals tend to evaluate one's opinion and abilities by comparing themselves with others to gain accurate self-evaluation (Festinger, 1954). Based on goals of engaging in social comparison, individuals occasionally choose targets of comparison who seem to be either superior or inferior to them in specific dimensions (Wood, 1989). In most cases, individuals choose either someone whose characteristics are similar to his or her own or someone who has connections with the self as targets of comparison (Festinger, 1954). From childhood to late adolescence, siblings with close age-gap and friends are mostly the targets of social comparison for individuals. Individuals unconsciously compare their abilities to his or her sibling's or friend's ability in order to capture an accurate self-evaluation.

Naturally, friend relationships are voluntary and chosen. In contrast, sibling relationships are inevitable and given. Sibling relationships are fixed and determined from birth. Friend relationships are typically a horizontal relationship in nature; it is established among individuals based on their similarities in age and status. On the other hand, sibling relationships are a mixture of horizontal and vertical relationships. Sibling relationships are mysterious and attractive (Isozaki, 2016).

The power balance and power relation in those two kinds of relationships are fundamentally different. The power structure among siblings in their relationship is not equal during their home life, especially until going to university, where they begin to gain autonomy in a sense. Generally, Firstborn individuals overwhelmingly influence sibling relationships and they find it is hard to build so-called SEM in sibling relationships. Developmentally, individuals of any birth order are gradually able to build balancing relationships with their siblings at a certain point in their lives.

Tesser (1988) proposed the self-evaluation maintenance (SEM) model that describes two different processes utilized by individuals to maintain their positive self-evaluation. In the SEM model, Tesser explained the interaction among three basic components, closeness (C), relevance (R), and performance (P) in the two antagonistic processes – namely the social comparison process and the reflection process. In the social comparison process, individuals tend to perceive self performance (P) on highly self-relevant areas (HR) higher than the close other's performance. On the other hand, on the reflection process, individuals tend to perceive the close other's performance (P) on lowly self-relevant areas (LR) higher than his or her performance.

Once self performance (P) on a highly self-relevant area (HR) is perceived inferior to the close other's performance, either the closeness (C) between the self and the other is expected to decrease, self performance (P) is expected to increase, or the activity's self-relevance is reduced in order to protect one's positive self-evaluation from being threatened by the good performance of the other. It is called avoiding the comparison process. In contrast, once the close other's performance (P) is perceived superior to one's performance on a lowly self-relevant area (LR), the closeness (C) between the self and the other is expected to increase in order to uplift one's positive self-evaluation. It is known as the reflection process. Though individuals apply different

strategies in the two different processes, they unconsciously attempt to maintain a positive self-evaluation through both processes.

Previous studies on the SEM model have showed that participants' self-evaluation maintenance behavior in friend relationships was consistent with what the SEM model predicts. However, individuals do not necessarily rely on their perceptions to rate the performance of the self and of the close others. Two worth noting studies by Isozaki and Takahashi (1988, 1993) found that Japanese elementary school students and junior high school students chose close friends whose highly self-relevant activities were similar to their own and they rated the performance of the self and other on the basis of actual grades rather than their perception. Another study by Isozaki and Pierce (2013) found that Japanese senior high school students chose close friends whose performance was very similar, but slightly poorer than their own performance on highly self-relevant areas and they were unlikely to make friend with those whose performance was poor both on highly self-relevant and on lowly self-relevant areas of self-relevance.

Studies that focused on the connection between birth order and personality traits have shown that Firstborn individuals were characterized as achievement oriented (Paulhus, Trapnell & Chen, 1999), dominant (Sulloway, 1996) and less jealous than Laterborns (Buunk, 1997). Accordingly, Firstborn individuals are likely to perceive themselves to be superior to their siblings or friends in some dimensions or activities that are highly relevant to their self-definition. Compared to Firstborn, Laterborns seem to be relationships oriented. In other words, the Laterborns tend to maintain their good relationships with their siblings or friends rather than avoid the comparison process. In accordance with those assumptions, birth order differences are expected effect in the SEM process, not only in sibling relationships but also in friend relationships.

2. Significance of Present Study

Typically, a SEM model study is conducted in the context of friend relationships to examine individuals' behavior in maintaining a positive self-evaluation. Moreover, some researchers conducted their research on the SEM model in the context of committed romantic relationships or marital relationships. There has been little study that focuses on sibling relationships as a background social context to a study that focuses on the SEM model. The present study not only examined the SEM model in sibling relationships, but also examined the effect of birth order on participants' self-evaluation maintenance behavior in sibling relationships and friend relationships.

Hypotheses

Hypotheses in this study are as follows:

1. Self-evaluation maintenance (SEM) processes (avoiding the comparison process and utilizing the reflection process) will be found in the sibling relationships.
2. Self-evaluation maintenance (SEM) processes will be found in the friend relationships.
3. The effect of birth order on self-evaluation maintenance processes will be found both in sibling relationships (among Firstborn, Middleborn, and Lastborn) and in friend relationships (among Firstborn, Middleborn, Lastborn, and Only Child).

3. Method

3.1 Participants

The participants were 705 undergraduate students (469 females, 236 males) from Japan and Myanmar with a mean age of 18.83 (*SD*=1.83). Of the 705

participants, 174 participants were Japanese students and 531 were Myanmar students. Participation was on a voluntary basis and no reward was given.

3.2 Materials

A questionnaire was employed for data collection. The questionnaire was constructed by the researcher and is comprised of three main sections related to (i) participants' demographic data, (ii) two targets of comparison, and (iii) a domain of activity that is the most important to participant's self-definition (or highly self-relevant activity, HR) and a domain of activity that is the least important to participant's self-definition (or lowly self-relevant activity, LR). The last section also explored performance ratings for the self and targets of comparison in two domains of activity mentioned above. The original questionnaire was developed in Japanese language and it was then translated into Burmese version by a graduate student whose first language is Burmese and whose Japanese language proficiency is equivalent to advanced level. Then, the Burmese version was checked and revised by means of back-translation by a Japanese-Burmese bilingual expert.

3.3 Procedure

The self-report type questionnaire was distributed in the classroom. In the Section 1 of the questionnaire, the participant's demographic data such as age, gender, birth order, and number of siblings were asked. In the Section 2, participants who have sibling(s) were asked to choose two targets of comparison (Target) –a close friend and a close sibling– and to write down the initial letter of each target's name in English. The close sibling is either an older or a younger sibling whose age is the closest to the participant's age. Only Child participants were asked to choose a close friend and to write down the initial letter of the close friend's name in English. In the Section 3, participants were given a list of different

Figure 1 Participants' perceived performance of the self and sibling on activities designated as highly self-relevant (HR) and lowly relevant (LR) to his or her self-definition.

domains of activity that includes such categories as academic performance, leisure activity, hobby, music and artistic talent and so on. Then, they were asked to choose two domains of activity –the most important domain of activity to one's self-definition or highly self-relevant activity (HR) and the least important to one's self-definition or lowly self-relevant activity (LR)–from the given list of activities mentioned above. Then, participants were asked to rate performance of target persons including self and one or two others on two self-relevant activities (HR and LR). While the participants who have sibling(s) rated the performance of three targets (self, the close friend, and the sibling), the Only Child participants rated that of two targets (self and the close friend). Performance rating was made on a 7-point scale (1 = the lowest; 7 = the highest).

4. Results

Japanese participants and Myanmar participants are considered qualitatively similar as university students; therefore, data were analyzed collectively. It's true that there are subtle cultural differences between Japan and Myanmar, but we would like to examine this point on another occasion.

4.1 Sibling Relationships

A within-subject repeated measured ANOVA was conducted to compare participants' ratings on self performance and sibling's performance on highly and lowly self-relevant activities.

Participants ($N = 617$) perceived their performance higher than their sibling's performance on highly self-relevant activities (HR), $F(1, 616) = 82.19$, $p < .001$, $\eta_p^2 = .118$. And, participants perceived their performance lower than their sibling's performance on lowly self-relevant activities (LR), $F(1, 616) = 260.20$, $p < .001$, $\eta_p^2 = .297$.

These findings showed that participants avoided the comparison process and utilized the reflection process in the sibling relationships and supported the Hypothesis 1: Self-evaluation maintenance processes (avoiding the comparison process and utilizing the reflection process) will be found in the sibling relationships.

In order to examine birth order differences in the two processes of the SEM model, a within-subject repeated measured ANOVA was separately conducted for each birth order group with an exception of the Only Child category.

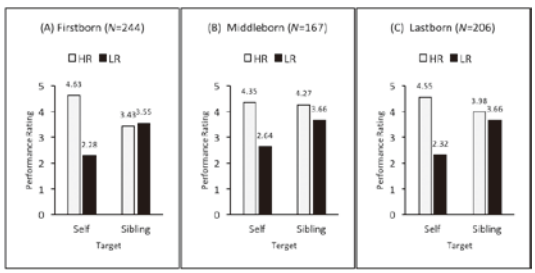

Figure 2 Birth order differences in performance rating for the self and sibling on activities designated as highly self-relevant (HR) and lowly relevant (LR) to his or her self-definition.

Firstborn participants ($N = 244$) perceived their performance higher than their sibling's performance on highly self-relevant activities, $F(1, 243) = 105.21$, $p < .001$, $\eta_p^2 = .031$. And, Firstborn participants perceived their performance lower than their sibling's performance on lowly self- relevant activities $F(1, 243) = 106.97$, $p < .001$, $\eta_p^2 = .306$.

Middleborn participants ($N = 167$) did not perceive their performance higher than their sibling's performance on highly self-relevant activities, $F(1, 166) = .33$ $p = .57$, $\eta_p^2 = .002$, *n.s.* But, Middleborn participants perceived their performance lower than their sibling's performance on lowly self-relevant activities, $F(1, 166) = 57.45$, $p < .001$, $\eta_p^2 = .257$.

Lastborn participants ($N = 206$) perceived their performance higher than their sibling's performance on highly self- relevant activities, $F(1, 205) = 18.96$, $p < .001$, $\eta_p^2 = .085$. And Lastborn participants perceived their performance lower than their sibling's performance on lowly self-relevant activities, $F(1, 205) = 96.18$, $p < .001$, $\eta_p^2 = .319$.

These findings showed that, in the sibling relationships, Firstborn and Lastborn participants avoided the comparison process whereas Middleborn participants did not. Nonetheless, all the birth orders (Firstborn, Middleborn, and Lastborn) were found to utilize the reflection process. Thus, birth order effect of the SEM model in the sibling relationships was found among Firstborn and Lastborn participants, but not among Middleborn participants.

4.2 Friend Relationships

A within-subject repeated measured ANOVA was conducted to compare participants' ratings on self performance and friend's performance on highly and lowly self-relevant activities.

Participants ($N = 705$) perceived their performance higher than their friend's performance on highly self-relevant activities (HR), $F(1, 704) = 38.08$, $p < .01$, $\eta_p^2 = .051$. And, participants perceived their performance lower than their friend's performance on lowly self-relevant activities (LR), $F(1, 704) = 274.42$, $p < .01$, $\eta_p^2 = .28$.

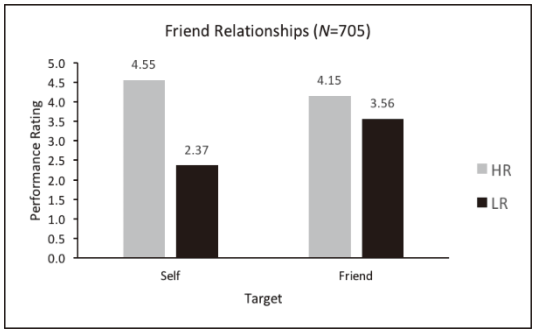

Figure 3 Participants' perceived performance of the self and friend on activities designated as highly self-relevant (HR) and lowly self-relevant (LR) to his or her self-definition.

These findings clearly showed that participants avoided the comparison process and utilized the reflection process in the friend relationships and supported the Hypothesis 2: Self-evaluation maintenance processes will be found in the friend relationships.

In order to examine birth order differences in the two processes of the SEM model, a within-subject repeated measured ANOVA was separately conducted for each birth order group.

Firstborn participants (N = 244) perceived their performance higher than their friend's performance on highly self-relevant areas, $F(1, 243) = 28.21$, $p < .001$, $\eta_p^2 = .103$. And, Firstborn participants perceived their performance lower than their friend's performance on lowly self-relevant activities, $F(1, 243) = 96.42$, $p < .001$, $\eta_p^2 = .282$.

Middleborn participants (N = 167) did not perceive their performance higher than their friend's performance on highly self-relevant activities, $F(1, 166) = .36$, $p < .50$, $\eta_p^2 = .002$, *n.s.* But, Middleborn participants perceived their performance lower than their friend's performance on lowly self-relevant activities, $F(1, 166) = 47.15$, $p < .001$, $\eta_p^2 = .221$.

Lastborn participants (N = 206) perceived their performance higher than their friend's performance on highly self-relevant activities, $F(1, 205) = 10.09$, $p < .01$, $\eta_p^2 = .047$. And Lastborn participants perceived their performance lower than their friend's performance on lowly self-relevant activities, $F(1, 205) = 84.70$, $p < .001$, $\eta_p^2 = .292$.

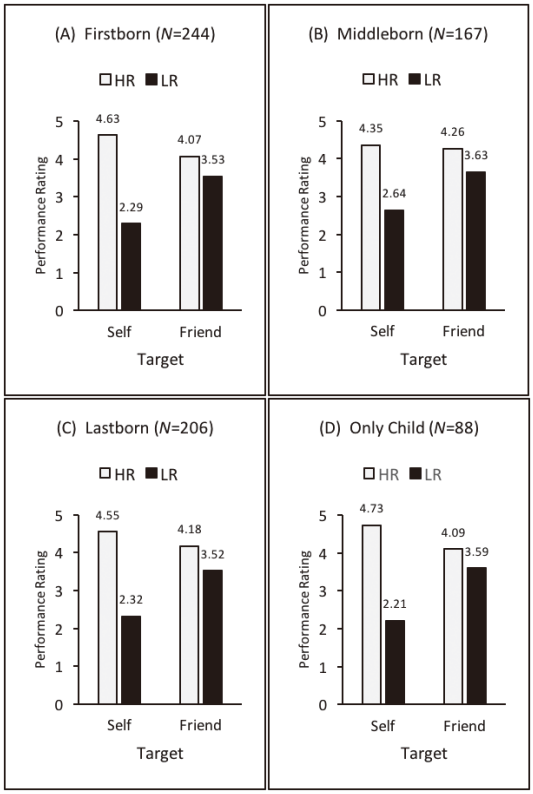

Figure 4 Birth order differences in performance ratings for the self and close friend on activities designated as highly self-relevant (HR) and lowly self-relevant (LR) to his or her self-definition.

Only Child participants (N = 88) perceived their performance higher than their friend's performance on highly self-relevant activities, $F(1, 87) = 10.46$, $p < .01$, $\eta_p^2 = .11$. And, Only Child participants perceived their performance lower than their friend's performance on lowly self-relevant activities, $F(1, 87) = 49.93$, $p < .001$, $\eta_p^2 = .37$.

These findings showed that, in the friend relationships, Firstborn, Lastborn, and Only Child participants avoided the comparison process while Middleborn participants did not. However, all the

birth orders (Firstborn, Middleborn, Lastborn, and Only Child) utilized the reflection process in the context of friend relationships. Accordingly, birth order effect of the SEM model in the friend relationships was clearly found among Firstborn, Lastborn, and Only Child participants, but not Middleborn participants.

Whereas the tendency to avoid the comparison process was clearly found among Firstborn, Lastborn (both in the sibling and friend relationships), and Only Child (in the friend relationships) in consistent with the prediction of typical SEM model, it was not found among Middleborn participants in both kinds of relationships. However, the tendency to utilize the reflection process was significantly found among all categories of birth order in both kinds of relationships in consistent with the prediction of typical SEM model.

Accordingly, the findings partially supported the Hypothesis 3: The effect of birth order on self-evaluation maintenance processes will be found both in sibling relationships (among Firstborn, Middleborn, and Lastborn) and in friend relationships (among Firstborn, Middleborn, Lastborn, and Only Child).

5. Discussion

The SEM model processes were confirmed both in friend relationships and in sibling relationships. These results on friend relationships is consistent with previous studies (Tesser, Campbell & Smith, 1984; Isozaki & Takahashi, 1988, 1993; Isozaki & Pierce, 2013). But Researchers did not find SEM processes in sibling relationships among elementary and junior high school students (Isozaki, 2007). In that sense, the results of this study are interesting.

During childhood, individuals seem to be unable to use self-evaluation maintenance in sibling relationships. Compared to younger siblings, the older ones enjoy superior positions in sibling relationships thanks to their better performance in various areas or activities throughout their childhood until adolescence. In such situations, later birth orders found it difficult to maintain their positive self-evaluation by avoiding the comparison process while they might find it easy to improve their self-evaluation by means of the reflection process. That means that self-evaluation maintenance process does not occur in sibling relationships among relatively young children (Isozaki, 2007).

However, when they grow up, the performance of siblings on their highly self-relevant areas becomes clear and that causes both older and younger siblings to maintain a positive self-evaluation by avoiding the comparison process. Middleborn individuals' behavior in self-evaluation maintenance is exceptional because they do not seem to avoid the comparison process, i.e., they are less likely to emphasize their positive self-evaluation by comparing their performance with that of their friend or sibling on the highly self-relevant areas. That is very suggestive as Middleborns are often found to be high in agreeableness on the Big 5 personality test (Sulloway, 2007), it seems that Middleborns do not want to distinguish their performance from the performance of their friend or sibling.

From these results, we conclude that individuals being successful at self-evaluation maintenance in a particular relationship seem vital for the preservation and promotion of the positive, healthy relationships.

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